



Tropical Depression EIGHT QuickLook Posted: 06:00 EDT 08/30/2016

NOAA and NOAA Partnership Stations Relative to the Storm 09/02/16 2 AM Chesapeake Bay Bridge Tunnel, VA Sewells Point, VA 09/01/16 2 AM Duck, NC Oregon Inlet Marina, NC 08/31/16 2 PM **USCG Station Hatteras, NC** Beaufort, NC 08/31/16 2 AM Wilmington, NC 08/30/16 2 PM 08/30/16 5 AM Wrightsville Beach, NC Active Stations

Storm Analysis

As of 08/30/2016 06:00 EDT, water levels at most stations from North Carolina to the entrance to Chesapeake Bay are slightly elevated and generally range between 0.4 and 0.7 feet above normal tide levels. Water levels at Oregon Inlet Marina, NC remain near tidal predictions. Winds generally range from 10-15 knots, with gusts up to 20 knots. Barometric pressure is gradually falling across the region.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the <u>Storm QuickLook</u> Homepage.

Analyst: PFF

SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION: TROPICAL DEPRESSION EIGHT ADVISORY NUMBER 8
NWS NATIONAL HURRICANE CENTER MIAMI FL
500 AM EDT TUE AUG 30 2016

...AIR FORCE RESERVE HURRICANE HUNTER AIRCRAFT INVESTIGATING THE DEPRESSION...

SUMMARY OF 500 AM EDT...0900 UTC...INFORMATION

LOCATION...33.9N 75.0W
ABOUT 95 MI...150 KM SSE OF CAPE HATTERAS NORTH CAROLINA MAXIMUM SUSTAINED WINDS...35 MPH...55 KM/H
PRESENT MOVEMENT...NW OR 305 DEGREES AT 6 MPH...9 KM/H
MINIMUM CENTRAL PRESSURE...1010 MB...29.83 INCHES

WATCHES AND WARNINGS

CHANGES WITH THIS ADVISORY:

None.

SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...

- * The coast of North Carolina from Cape Lookout to Oregon Inlet
- * Pamlico Sound

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area, in this case within 24 hours.

Interests elsewhere along the Outer Banks of North Carolina should monitor the progress of the depression. Additional watches or warnings may be required later tonight or Tuesday morning.

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

DISCUSSION AND 48-HOUR OUTLOOK

At 500 AM EDT (0900 UTC), the center of Tropical Depression Eight was located near latitude 33.9 North, longitude 75.0 West. The depression is moving toward the northwest near 6 mph (9 km/h). A turn toward te north is expected later today, and a turn toward the northeast is forecast on Wednesday. On the forecast track, the center of

the depression will be near the Outer Banks of North Carolina this afternoon or this evening.

Maximum sustained winds are near 35 mph (55 km/h) with higher gusts. Slow strengthening is forecast during the next 48 hours, and the depression could become a tropical storm later today.

The minimum central pressure from Air Force Reserve Hurricane Hunter aircraft data is 1010 mb (29.83 inches).

HAZARDS AFFECTING LAND

WIND: Tropical storm conditions are expected within the warning area, beginning by this afternoon.

RAINFALL: The depression is expected to produce total rain accumulations of 1 to 3 inches with isolated maximum amounts of 5 inches over far eastern North Carolina, including the Outer Banks.

NEXT ADVISORY

Next intermediate advisory at 800 AM EDT. Next complete advisory at 1100 AM EDT.

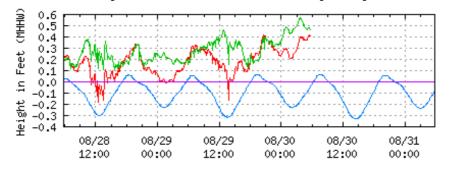
\$\$

Forecaster Beven

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: <u>USCG Station Hatteras - Water Level</u>, <u>USCG Station Hatteras - Winds</u>, <u>USCG Station Hatteras - Barometric</u>, <u>Oregon Inlet Marina - Water Level</u>, <u>Oregon Inlet Marina - Winds</u>, <u>Oregon Inlet Marina - Barometric</u>, <u>Duck - Water Level</u>, <u>Duck - Winds</u>, <u>Duck - Barometric</u>, <u>Chesapeake Bay Bridge Tunnel - Water Level</u>, <u>Chesapeake Bay Bridge Tunnel - Water Level</u>, <u>Sewells Point - Barometric</u>, <u>Beaufort - Water Level</u>, <u>Beaufort - Winds</u>, <u>Beaufort - Barometric</u>, <u>Wrightsville Beach - Water Level</u>, <u>Wilmington - Water Level</u>, <u>Wilmington - Barometric</u>

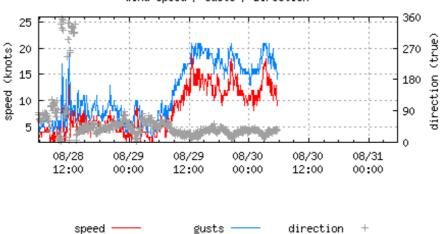
NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatters</u>, <u>NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) (Obs-Pred) MHHW

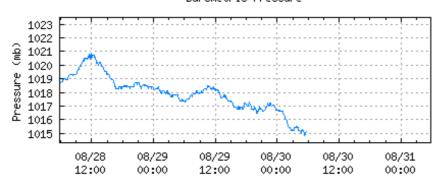
Last Observed Sample: 08/30/2016 05:36 (EDT). Data relative to MHHW Observed: 0.41 ft. Predicted: -0.05 ft. Residual: 0.46 ft. Historical Maximum Water Level: Oct 29 2012, 4.02 ft. Next High Tide: 08/30/2016 07:36 (EDT), 0.06 ft.

NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatteras</u>, NC Wind Speed / Gusts / Direction



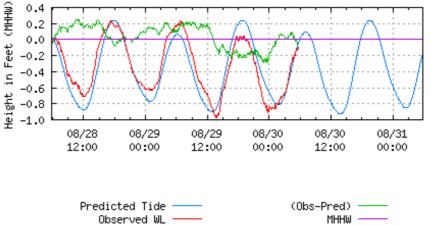
Last Observed Sample: 08/30/2016 05:36 (EDT) Wind Speed: 9 knots Gusts: 14 knots Direction: 35° T

NOAA/NOS/CO-OPS <u>8654467 USCG Station Hatteras</u>, <u>NC</u> Barometric Pressure



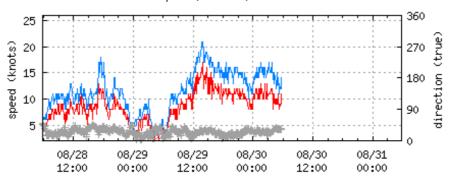
barometric pressure ——
Last Observed Sample: 08/30/2016 05:36 (EDT)
Barometric Pressure: 1015.1 mb

NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/30/2016 05:42 (EDT). Data relative to MHHW Observed: -0.09 ft. Predicted: -0.04 ft. Residual: -0.05 ft. Historical Maximum Water Level: Aug 28 2011, 6.32 ft. Next High Tide: 08/30/2016 07:06 (EDT), 0.09 ft.

NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina, NC</u> Wind Speed / Gusts / Direction



speed gusts direction + Last Observed Sample: 08/30/2016 05:42 (EDT)

Wind Speed: 11 knots Gusts: 14 knots Direction: 33° T

NOAA/NOS/CO-OPS <u>8652587 Oregon Inlet Marina</u>, NC Barometric Pressure

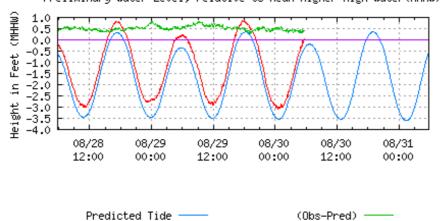


barometric pressure ----

Last Observed Sample: 08/30/2016 05:42 (EDT)

Barometric Pressure: 1016.4 mb

NOAA/NOS/CO-OPS <u>8651370 Duck</u>, <u>NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



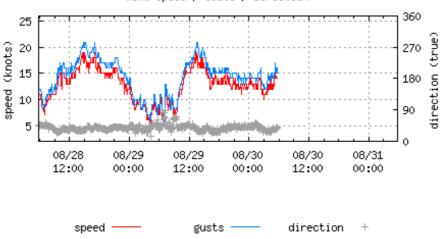
Last Observed Sample: 08/30/2016 05:42 (EDT). Data relative to MHHW Observed: 0.03 ft. Predicted: -0.37 ft. Residual: 0.40 ft. Historical Maximum Water Level: Sep 18 2003, 4.13 ft.

Next High Tide: 08/30/2016 06:40 (EDT), -0.19 ft.

MHHW

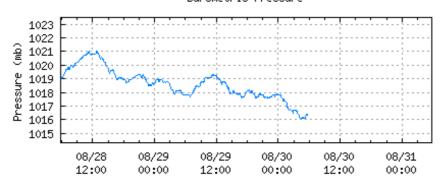
Observed WL

NOAA/NOS/CO-OPS <u>8651370 Duck, NC</u> Wind Speed / Gusts / Direction



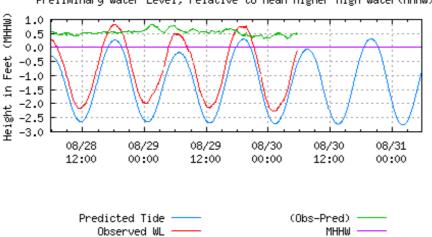
Last Observed Sample: 08/30/2016 05:42 (EDT) Wind Speed: 14 knots Gusts: 16 knots Direction: 38° T

NOAA/NOS/CO-OPS <u>8651370 Duck</u>, <u>NC</u> Barometric Pressure



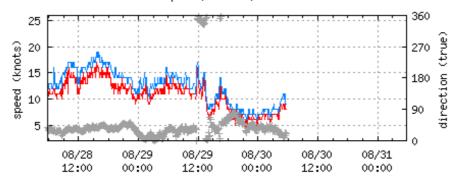
barometric pressure ——
Last Observed Sample: 08/30/2016 05:42 (EDT)
Barometric Pressure: 1016.3 mb

NOAA/NOS/CO-OPS 8638863 Chesapeake Bay Bridge Tunnel, VA Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/30/2016 05:36 (EDT). Data relative to MHHW Observed: -0.11 ft. Predicted: -0.61 ft. Residual: 0.50 ft. Historical Maximum Water Level: Nov 12 2009, 4.66 ft. Next High Tide: 08/30/2016 07:38 (EDT), -0.06 ft.

NOAA/NOS/CO-OPS $\underline{8638863\ Chesapeake\ Bay\ Bridge\ Tunnel,\ VA}$ Wind Speed / Gusts / Direction



speed gusts direction +
Last Observed Sample: 08/30/2016 05:36 (EDT)

Wind Speed: 8 knots Gusts: 9 knots Direction: 21° T

NOAA/NOS/CO-OPS <u>8638863 Chesapeake Bay Bridge Tunnel, VA</u> Barometric Pressure

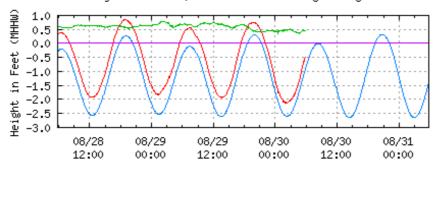


barometric pressure ----

Last Observed Sample: 08/30/2016 05:36 (EDT)

Barometric Pressure: 1017.5 mb

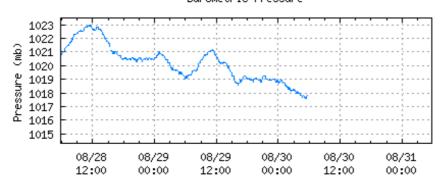
NOAA/NOS/CO-OPS <u>8638610 Sewells Point, VA</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Predicted Tide (Obs-Pred) — Observed WL MHHW —

Last Observed Sample: 08/30/2016 05:48 (EDT). Data relative to MHHW Observed: -0.49 ft. Predicted: -0.95 ft. Residual: 0.46 ft. Historical Maximum Water Level: Aug 23 1933, 5.26 ft. Next High Tide: 08/30/2016 08:20 (EDT), -0.00 ft.

NOAA/NOS/CO-OPS <u>8638610 Sewells Point, VA</u> Barometric Pressure

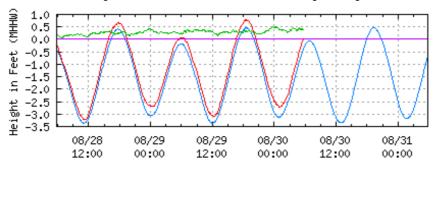


barometric pressure ----

Last Observed Sample: 08/30/2016 05:48 (EDT)

Barometric Pressure: 1017.8 mb

NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/30/2016 05:36 (EDT). Data relative to MHHW Observed: -0.04 ft. Predicted: -0.42 ft. Residual: 0.38 ft.

(Obs-Pred)

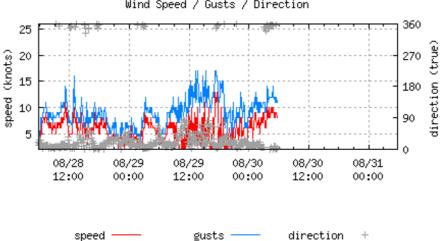
MHHW

Predicted Tide

Observed WL

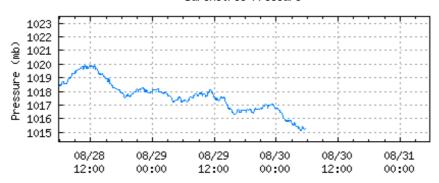
Historical Maximum Water Level: Sep 14 2005, 3.01 ft. Next High Tide: 08/30/2016 06:50 (EDT), -0.05 ft.

NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Wind Speed / Gusts / Direction



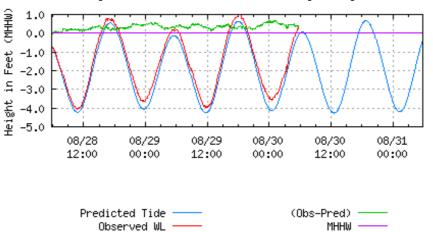
Last Observed Sample: 08/30/2016 05:36 (EDT) Wind Speed: 8 knots Gusts: 11 knots Direction: 2° T

NOAA/NOS/CO-OPS <u>8656483 Beaufort, NC</u> Barometric Pressure



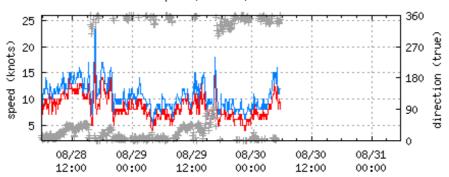
barometric pressure ——
Last Observed Sample: 08/30/2016 05:36 (EDT)
Barometric Pressure: 1015.3 mb

NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/30/2016 05:42 (EDT). Data relative to MHHW Observed: 0.29 ft. Predicted: -0.09 ft. Residual: 0.38 ft. Historical Maximum Water Level: Sep 25 2008, 2.81 ft. Next High Tide: 08/30/2016 06:24 (EDT), 0.06 ft.

$NOAA/NOS/CO-OPS ~ \underline{8658163~Wrightsville~Beach,~NC} \\ \text{Wind Speed / Gusts / Direction}$



speed gusts direction + Last Observed Sample: 08/30/2016 05:42 (EDT)

Wind Speed: 8 knots Gusts: 12 knots Direction: 360° T

NOAA/NOS/CO-OPS <u>8658163 Wrightsville Beach, NC</u> Barometric Pressure

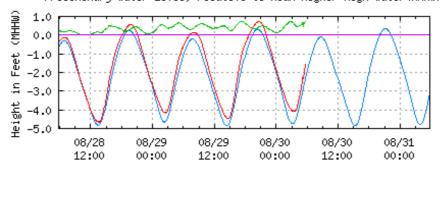


barometric pressure ----

Last Observed Sample: 08/30/2016 05:42 (EDT)

Barometric Pressure: 1015.2 mb

NOAA/NOS/CO-OPS <u>8658120 Wilmington, NC</u> Preliminary Water Level, relative to Mean Higher High Water(MHHW)

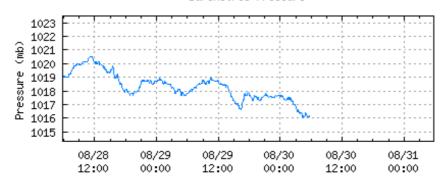


Predicted Tide (Obs-Pred)
Observed WL MHHW

Last Observed Sample: 08/30/2016 05:42 (EDT). Data relative to MHHW Observed: -1.57 ft. Predicted: -2.29 ft. Residual: 0.72 ft. Historical Maximum Water Level: Oct 15 1954, 3.47 ft.

Next High Tide: 08/30/2016 08:41 (EDT), -0.10 ft.

NOAA/NOS/CO-OPS <u>8658120 Wilmington, NC</u> Barometric Pressure



barometric pressure ----

Last Observed Sample: 08/30/2016 05:42 (EDT)
Barometric Pressure: 1016.2 mb

Latest Water Level Observations on MHHW

Station II	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8654467	USCG Station Hatteras, NC	08/30/2016 05:36 (EDT)	0.41 ft	-0.05 ft	0.46 ft	0.42 ft
8652587	Oregon Inlet Marina, NC	08/30/2016 05:42 (EDT)	-0.09 ft	-0.04 ft	-0.05 ft	0.23 ft
8651370	Duck, NC	08/30/2016 05:42 (EDT)	0.03 ft	-0.37 ft	0.40 ft	0.87 ft
8638863	Chesapeake Bay Bridge Tunnel, VA	08/30/2016 05:36 (EDT)	-0.11 ft	-0.61 ft	0.50 ft	0.77 ft
8638610	Sewells Point, VA	08/30/2016 05:48 (EDT)	-0.49 ft	-0.95 ft	0.46 ft	0.74 ft
8656483	Beaufort, NC	08/30/2016 05:36 (EDT)	-0.04 ft	-0.42 ft	0.38 ft	0.78 ft
8658163	Wrightsville Beach, NC	08/30/2016 05:42 (EDT)	0.29 ft	-0.09 ft	0.38 ft	1.00 ft
8658120	Wilmington, NC	08/30/2016 05:42 (EDT)	-1.57 ft	-2.29 ft	0.72 ft	0.73 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce